

Functional adult literacy and empowerment of women: Impact of a functional literacy program in Turkey

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This Turkish literacy program contributed to the social integration, positive self-concepts, and family cohesion of the women who participated in it.

The study we discuss here addresses the impact of functional adult literacy on the empowerment of women in the absence of formal schooling. Our overall goal was to examine whether the effects of functional literacy are exclusively content-specific or whether there are gains going beyond the obvious benefits, extending to other spheres of everyday functioning including cognitive, personal, and interpersonal. We studied a development intervention program implemented in Turkey, the Functional Adult Literacy Program (FALP), for its impact beyond specific gains in literacy. The purpose of the study was to observe the influence of the literacy program on the cognitive, personal, familial, and social spheres of participants' lives. Our focus is on these issues rather than the impact of the program on becoming more literate.

The research comprised two studies. The first study looked at the transfer to daily life of skills gained during FALP. The second study was a follow-up that examined the specific manifesta-

tions of such transformational changes and institutionalization of these transformations a year later in the lives of the participants. The theoretical framework of this article is based on the converging point of two separate lines of thought: (1) the arguments of functional adult literacy as an empowering process and (2) the "capabilities" approaches of Sen (1985) and Nussbaum (2000) stemming from the critiques of social justice theories.

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Functional adult literacy

To the lay person, *literacy* simply means the ability to read and write, yet, to the expert, the concept is anything but simple. There is an ongoing debate over definitions and standards of literacy that revolves mainly around the levels of acquired skill and the uses to which it may be put (Venezky, Wagner, & Ciliberti, 1990; Wagner, 1999).

Functional literacy is not just a skill or knowledge, and its acquisition encompasses more than learning a number of technical skills. Being functionally literate is more than simply decoding script, or producing essays; it is also taking on the identities associated with these practices. Functional literacy is an emancipatory practice that requires people to read, speak, and understand a

language. In this sense, functional literacy is a competence that goes beyond grammar and semantics rooted in everyday exchanges. Such conceptualization emphasizes the linkages between reading, writing, culture, economy, and political system.

Functional adult literacy is particularly important in developing countries such as Turkey where formal education has not reached a significant proportion of the adult population, particularly in the rural areas. The average schooling of the adult population (over 25 years of age) in Turkey has been estimated as 5.6 years (Filiztekin, 2003). In rural Turkey the average schooling may go down to 4.2 years. This low level of schooling is due in large part to low education among women. Figures from 2003 show that while the adult literacy rate for men is 94.9%, this rate goes down to 80.5% for women (Filiztekin). Gender differences in net enrollment in primary school across different regions are even more striking. In western and mostly urban regions, primary school enrollment rates are 99.1% for men and 96.2% for women. However, in eastern and mostly rural parts of Turkey these enrollment rates are significantly different between male and female populations: 90.5% for men and 74.1% for women (Filiztekin).

Migrants from less developed and rural areas to the large cities, and especially the metropolitan centers, find themselves increasingly taxed in coping with the demands of urban lifestyles for which they lack the basic educational skills (for a review see Levinger, 1996). Though formal education is of crucial significance for human capacity development of the young generations, it has much less, if any, impact on the adult population. Thus the gross inadequacies in the formal schooling of adults, particularly of rural migrants, can be compensated mainly by nonformal education. Given the gender inequities, nonformal adult education assumes a special importance for migrant women in metropolitan centers.

Even though no one questions the value of literacy, there is some debate regarding its specific

consequences or benefits. For some time, literacy has been seen as a highly potent catalyst of cultural and societal change (Goody, 1977; Olson, 1977). More recent discussion revolves around the benefits of literacy for the social integration of the lower income and marginal groups in society, which contributes to participatory democracy (Levine, 1994), and for the development of "human capital," the catalyst for economic development (Psacharopoulos & Woodhall, 1985). For example, Greaney (1996) showed that there is a strong link between literacy rates in a society and general development levels, as indicated by Gross National Product, primary and secondary school enrollment, life expectancy, birth weight, and newspaper circulation.

Literacy is seen as an empowering process, particularly for women who constitute most of the world's illiterates. The gender gap in literacy and education is widespread, being especially marked in the less developed countries. Beyond being a serious human rights and equity issue, it also has significant economic, demographic, and health ramifications, as substantiated by several studies (Levine, 1994; McGranahan, 1995; Mehra, 1997). Much research in developing countries points to the empowering effects of literacy for women (Ellis, 1995; Jayaweera, 1997; Manthoto, 1995; Spratt, 1992). For example, literate women are found to enjoy a higher status in the family than nonliterate women. They also use more family planning and have fewer and healthier children than nonliterate women.

From the perspective of the individual woman who has not had the opportunity for basic literacy, due to early difficult life circumstances such as poverty or patriarchal family ideology preventing women's education, participation in a community intervention program is a self-enhancing activity. Given women's scarcity of resources and power in these social contexts, community intervention programs are important in enabling them to establish social relations outside the home. This is where the theoretical foundation

of this study merges with the capabilities approaches of Sen (1985) and Nussbaum (2000).

Capabilities approach

Pioneered by Sen (1985), the capabilities perspective focuses on fair distribution of capabilities—the resources and power to exercise self-determination—to achieve well-being. While the capabilities approach recognizes the importance of social primary goods as valuable resources necessary for well-being, it views them as means to an end, not an end in themselves. Sen argued that people's abilities to convert goods into valuable functionings vary greatly across individuals, and it is this variability that has important implications for the development and empowerment of women. The capabilities approach examines the conception of what makes a good life for an individual and builds on this to develop the capabilities framework for a just society (Sugden, 1979). Sen asserted that achieved functionings are dependent on a person's capabilities and distinguished between them by saying that a functioning "is an achievement, whereas a capability is an ability to achieve" (p. 36).

Nussbaum (2000), on the other hand, saw capabilities as a safety net—the positive freedoms—to achieve well-being. Nussbaum's safety net is a set of "central capabilities" necessary for a person "to live in a truly human way" (p. 34). Nussbaum asserted that her central capabilities provide a threshold level, one that all citizens have a right to demand. Among these capabilities, Nussbaum listed bodily health (being able to have good health, including reproductive health); bodily integrity (being able to move freely from one place to another); senses, imagination, and thought (being able to reason, to use thought connection); and practical reason (being able to form a conception of the good and to engage in critical reflection about the planning of one's life). Nussbaum argued that human dignity requires a person to "shape his/her own life in cooperation and reciprocity with others" (p. 60).

She hypothesized that as people achieve more capabilities, they will develop more informed demands and preferences. She reported her experience with women in India in self-help groups who did drop habitual preferences and adjust aspirations with a new sense of equality, self-efficacy, and awareness. She argued that in countries where women encounter societal barriers from traditional hierarchies, more resources are required to educate women than men. Nussbaum claimed that "for women who begin from a position of traditional deprivation and powerlessness they will require special attention and aid to arrive at a level of capability that the more powerful can more easily attain" (p. 69).

As can be seen, among the central capabilities, senses, imagination and thought, and practical reason are fundamentals of dignified human life. Literacy, especially functional adult literacy for women, is one of the means to achieve such ends. Taking up the debates on the functional literacy and capabilities approaches, this article aims at evaluating capabilities gained through a functional adult literacy program for women. The next section gives a detailed description of FALP, the program implemented in Turkey.

The Functional Adult Literacy Program

FALP was developed by Durgunoglu, Oney, and Kuşçul (1996) for the Mother-Child Education Foundation (MOCEF) for application to adults without any reading and writing skills. It has been implemented by MOCEF for 10 years in Istanbul and a number of other provinces in Turkey, including some in the least developed areas. It has gone through revisions in the process of applications. So far, some 35,000 adults have participated in FALP, of whom 98% are women. FALP courses are implemented free of charge, mostly at community adult education centers, and are run by female volunteer trainers. They comprise a 120-hour curriculum, equivalent to the Basic Literacy Program provided by the Ministry of Education,

and run over three to four months when participants meet for three to four hours, three times a week. FALP volunteers participate in a full-time, three-week seminar given by MOCEF trainers and, if they successfully complete the training, they receive an instructor certificate from the Ministry. The volunteer instructors (or facilitators) are continuously supported by the more experienced trainers who liaise and consult. So far 1,500 volunteers have been trained.

FALP is implemented in classes of about 20 participants. The program is prepared as 25 topical units, spread over the entire period. To achieve the aims of the program, several different types of activities are carried out in addition to the regular reading and writing exercises. In particular, reading is made interesting, relevant to the participants' lives, and culturally sensitive by using familiar folk tales, proverbs, and poetry as reading materials. Simple extra reading materials as expository texts include basic information regarding everyday activities, health, and hygiene. At times, drama is also used as an educational tool, such as acting out a conversation passage in the reading material between a vendor and a buyer at a market. Three program textbooks have been prepared and are in use: *Participant Textbook*, *Instructor's Annotated Edition*, and the *Theoretical Guide to Literacy* (Durgunoglu et al., 1996; Durgunoglu, Oney, & Kuşçul, 2003; see also the MOCEF website www.acev.org for more information).

FALP has some major differences from the mainstream literacy courses. First, it takes full phonological advantage of the Turkish alphabet's systematic letter–sound correspondence. The Turkish alphabet was devised rather recently, in 1928, as a modern coding system with full phonological transparency. However, this quality that helps in learning to read and write is hardly used in traditional teaching in schools and adult education courses. The classic literacy instruction relies on decoding whole sentences and does not use the letter–sound correspondence in teaching. Yet this characteristic of Turkish orthography makes for easier learning if used effectively. A

Turkish word has as many letters as its sounds, unlike English. For example, the first and the last letters in the word *çalış* correspond to two letters each in English, *ch* and *sh*. In addition, every letter refers to only one sound, such that in Turkish there cannot be two different spellings for the same sounding words, unlike for example *knight* and *night* in English; this sound would be spelled as *nayt* in Turkish.

A second distinction from ordinary literacy courses is that FALP emphasizes critical thinking and comprehension processes through active discussion, reasoning, inferencing, and activating prior knowledge on a topic. These strategies are incorporated into the program. For example, each lesson has a target reading passage about a fictional family, complemented by a picture, which is first discussed before being read.

Third, FALP attempts to make literacy functional and meaningful in the everyday life of participants and includes exercises for urban dwellers such as reading bus schedules or user manuals, filling out job application forms, and taking notes. In FALP, participants are facilitated into discussions on subjects such as communication in the family, child discipline, first aid, health and family planning, and citizenship rights. More specific topics touch upon social and gender issues (e.g., the importance of civil marriage, of marrying late, of a small family, and of girls' education) as well as practical matters (e.g., using the phone, following instructions, and handling transactions in public institutions like hospitals).

The program also aims to increase the participants' interaction with society and the world, and in each session a newspaper article is discussed. Various written materials including poems, stories, and articles are also used to instill an appreciation of language and interest in reading and to enrich participants' literacy experiences. Basic arithmetic skills are taught through examples from everyday life (e.g., reading bus numbers and price tags, telling the time, and checking telephone numbers and utility bills) as well as examples of addition and subtraction (Durgunoglu, 2000).

The functionality aspect of FALP is not unique; there are similar programs in other countries. What makes the program unique is the combination of its characteristics: functionality, use of letter–sound correspondence, emphasis on critical thinking, discussions on significant social issues, and appreciation of language and reading. The democratic and supportive trainer–participant relationship is also important and distinguishes FALP from the more authoritarian adult education courses.

Evaluation work has been conducted with FALP, both in terms of its own effectiveness and through comparison with the mainstream classic literacy course. The first evaluation study was conducted on the first cohort (Durgunoglu et al., 1996); then a second study was conducted with a larger sample from the second and the third cohorts (Durgunoglu et al., 2003). These studies showed that FALP is quite effective as compared with the classic course. Before and after comparisons revealed that FALP improved the literacy skills of the participants substantially. Another study using mainly qualitative analyses (Durgunoglu, 2000) again pointed to the effectiveness of FALP, particularly in building basic literacy skills in the beginners and in enhancing them in those with some prior experience, such as knowledge of the alphabet. These positive results are obtained even though FALP is considerably shorter than the minimum of 250 to 300 hours recommended (Comings, 1995). Nevertheless, reading comprehension was found to be limited, indicating that 120 hours is indeed too short. It was also found that the participants were highly motivated; they valued their experience and believed that they benefited greatly from it. Of particular importance was the sense of independence the participants expressed, reflecting increased efficacy and decreased reliance on others in actions (Durgunoglu, 2000).

Hypotheses

Given the above conceptualizations, the hypotheses of the current study are related to several ex-

pected benefits from participating in FALP. These benefits represent different spheres of the participating women's lives, such as social, family, personal, and cognitive. The measures by which these benefits of the program were operationalized are presented in Table 1. The items listed under each scale represent the items of the survey, which were read to the participants.

At the social level, it is expected that participants of FALP would have higher social participation scores (e.g., scores on voting, organization membership, donations) after the completion of the program.

At the family level, several changes are expected in family dynamics and attitudes toward fertility. FALP participants are expected to have (a) higher scores on participation in decision making in the household after the completion of the program; (b) higher scores on family cohesion after the completion of the program; and (c) lower scores on several value-of-children scales (economic/ utilitarian, social, and psychological value) after the completion of the program. (The latter questions tapped the value women attributed to having an additional child.)

At the personal level, FALP participants are expected to have more positive self-concept and self-efficacy scores after the completion of the program.

At the cognitive level, the program is expected to increase skills beyond reading and writing. Cognitive skills are operationalized as oral comprehension and memory for discourse in the form of news clips on television. FALP participants are expected to have higher news-topic recall and news-content recall scores after the completion of the program.

Study 1 design

Study 1 has a pretest–posttest design with a comparison group tested only once. Women in the program were studied before and after participation with a time interval of approximately four

Table 1
Scale items and Cronbach's Alpha

	Pretest alpha	Posttest alpha
Social participation scale (0–12 points)		
For each item: 0 = never; 1 = sometimes; 2 = always		
	.46	.46
Voting behavior		
Donation to organizations		
Participation in organizations		
Exposure to newspaper		
Talk about current news with family and friends		
Comprehension of news		
Family cohesion scale (0–14 points)		
For each item: 0 = not at all; 1 = somewhat; 2 = very close		
	.57	.56
The quality of relationship among family members		
The closeness among family members		
The closeness between mother and child		
The closeness between father and child		
The frequency of mother and father doing things together		
The frequency of interaction between mother and child		
The amount of time mother spends with child other than meal times		
Value of children (0–16 points)		
For each item: 0 = not important; 1 = somewhat important; 2 = very important		
	.81	.81
Significance of wanting an additional child		
For financial support in old age		
To have a son		
For old age security		
For help while the child is young		
For love		
For closeness		
For family name		
For fun		
Decision making (0–5 points)		
For each item: 0 = husband decides; 1 = together or woman decides		
	.47	.47
Who decides to buy expensive things?		
Who decides to have another child?		
Who decides to use birth control?		
Whose opinion prevails in an important decision?		
Who decides how to discipline the child?		

(continued)

Table 1
Scale items and Cronbach's Alpha (continued)

	Pretest alpha	Posttest alpha
Self-concept (0–16 points)		
For each item: 0 = not at all; 1 = somewhat; 2 = very much		
	.74	.78
How pleased are you with yourself?		
How good are you as a housewife?		
How pleased are you with your appearance?		
How good are you as a mother?		
How knowledgeable do you find yourself?		
How smart do you find yourself?		
How skillful do you find yourself?		
How successful do you find yourself?		
Self-efficacy (0–10 points)		
For each item: 0 = never; 1 = sometimes; 2 = all the time		
	.74	.76
Have you ever shopped in a supermarket by yourself?		
Have you ever taken a bus by yourself?		
Have you ever done a transaction in a bank by yourself?		
Have you ever paid bills by yourself?		
Have you ever crossed the bridge (to other side of city) by yourself?		

months. Participants were from different centers where the FALP training was conducted. The sample included those participants who volunteered to participate from the centers in Istanbul offering FALP training at the time the study was conducted. The comparison group was obtained through the snowball sampling technique by requesting FALP participants to give names and addresses of other women in their neighborhood who were their friends or neighbors. This strategy was employed to have matched economic and educational levels. However, the comparison group ended up having a somewhat higher income and education. Therefore, the comparison group did not provide exact comparisons, although it did provide some insights about the progress of the FALP participants.

Comparison groups in such studies allow for causal inferences and provide support to the

claim that the differences attributed to the intervention program are indeed most probably due to the intervention program. Quasi-experimental designs with control groups do not really assure causality, but they verify that some extraneous variables that change with time are not influential in the obtained results. In the current study, we assumed that the adult population we studied is not subject to significant changes in as short a duration as four months. Unlike children or youth, the participants of the current study, with a mean age of 40, were not experiencing important developmental or social changes except for program participation. Nevertheless, we will refrain from making causal statements regarding the outcome of the study. We will use the comparison group results whenever they are helpful in understanding the results of analyses on FALP participants. The comparison group data were

available only for the questionnaire component of the study. The comparison group could not be tested for news recall because the participants in this group were tested individually at their homes, and equipment required for testing was not transportable.

Method

Participants

The study was conducted in Istanbul, Turkey. The sample of the study comprised the participants of FALP. Most of the women who participated in this program were young to middle-age adults who had migrated with their families to Istanbul from rural areas. The demographic profile of FALP participants displays that 91% of FALP women have no formal schooling, and they live with their families, mostly extended, with an average family size of 4.9. Mean age of FALP participants was 40.6, ranging from 17 to 65.

There were 140 participants in the pretest session, and we were able to contact 95 of them for the posttest. Thirty-two percent of the sample ($N = 45$) was lost during the period between the pretest and the posttest interviews. The loss was basically because these participants were absent on that particular day of the program when posttest interviews were conducted. Of 45 absentees only 10 quit the program before it was completed. A *t*-test analysis was performed to examine if there were any statistical differences between those who were not contacted for the posttest interviews and the ones who were. Analysis performed on demographic variables such as age, monthly expenditure, husband's education, place of birth, and number of children revealed no statistically significant differences.

The comparison group was composed of 114 women of low-literacy level with a mean education level of 6.0 years. The mean age was 32.6, and the average family size was 4.5 people. Only 18% of this group had no formal schooling, and

an additional 39% had an education of between one and five years. About 76% of this group can be assumed to have considerable levels of literacy as compared with 9% of the FALP group.

Measures

Attitude-behavior questionnaire. A questionnaire was designed for this study comprising two sets of items. One set was questions aiming at constructing the demographic profile of the participants. Characteristics covered were age, education, husband's education, number of children, household expenditure, birthplace, and number of years in Istanbul. The second set of items included scales assessing self-concept, self-efficacy, social participation, decision making, family cohesion, and value of children. Table 1 shows the items included in each scale and the Cronbach's alpha coefficients in pretest and posttest.

News clip and comprehension test. A television news program was created by the researchers in cooperation with professional TV program producers. The 15-minute news clip contained 12 fabricated news stories without any visuals that were equally distributed among local, national, and international news stories. The news stories were on (a) topics such as health, environment, national and international politics, and the economy and (b) problems of urban living, selected for relevance on the basis of focus group discussions, as well as human interest stories.

The comprehension test used with the news clip was a two-part, open-ended test. In the first part, the participants were asked to list the topics of the news stories that they just heard, measuring recall. In the second part, participants were reminded of the topic of each news story, and they were asked to tell what they understood from the story. Participants' responses were scored through comparison of the number of idea units included in the recall protocols with the number of units contained in the story text.

Procedure

FALP participants were tested in groups in the locations where they were attending the course. The same procedure was repeated at the end of the training program after approximately four months. In both pretests and posttests, participants were first shown the news clip, and at the end of it each participant was approached by a separate trained interviewer. The interviewers asked the questions orally and recorded the responses on the survey forms. The interviewers first asked for the topics of the news the participants could remember. Subsequently, they asked the participants to provide all the information they could remember about those news topics. The same video news clip was shown during the posttest interviews. It should be noted here that during the posttests, participants were tested for whether they remembered the news clips from the pretest interviews. It was found out that they did not remember the content of the news clip. After this phase of the study, both in the pretest and posttest phases, the interviewers proceeded with the administration of the attitude-behavior questionnaire.

Those in the comparison group were contacted by telephone, and appointments were made. Interviewers asked only the questions in the questionnaire to this group.

Results

Initially, comparisons were made, testing for the changes from pretest to posttest. One-tailed *t* tests were used for hypothesized increase in self-efficacy, positive self-concept, family cohesion, women's participation in decision making, social participation, news-topic and content recall, and decrease in fertility values from pre- to posttest. Table 2 presents the means and standard deviations for the variables tested in these analyses as well as the *t*-test results.

The results summarized in Table 2 support our hypotheses for increased social participation,

family cohesion, and positive self-concept together with decreased value of children as a reason for having additional children. There were also gains in news recall as expected. However, there were no significant changes in self-efficacy and women's participation in decision making.

These results were also tested for differences from the comparison group using education level as a covariate. The participants in the comparison group had a mean of 5.96 (*SD* = 4.02) years of formal schooling as opposed to the 0.26 (*SD* = 1.15) years of formal schooling of the FALP participants. Two multivariate analyses of covariance (MANCOVAs) were conducted to examine the differences between the participant group and the comparison group in the pretest and posttest. Given the group differences in education, years of formal schooling was used as a covariate.

The MANCOVA on the posttest scores showed a significant difference for course participation, $F(6,196) = 4.85, p < .001$. Subsequent multivariate analyses indicated significant differences between the two groups in social participation, $F(1, 201) = 8.21, p < .005, MSE = 3.62$, and self-efficacy, $F(1, 201) = 8.33, p < .005, MSE = 8.59$, scales. On the social participation scale, the means adjusted for education were 6.56 (*SE* = 0.21) for the comparison group and 7.60 (*SE* = 0.24) for the participant group. On self-efficacy, the adjusted mean for the comparison group was 6.33 (*SE* = 0.32) and 7.94 (*SE* = 0.37) for the participant group. When the MANCOVA analysis was performed on the pretest scores, the overall effect of course participation was significant, $F(6,204) = 4.41, p < .001$. In individual effects, the only significant difference between the two groups was in the family cohesion scale, $F(1, 202) = 7.15, p < .01, MSE = 6.86$, such that the mean scale score adjusted for education for the comparison group ($M = 7.77, SE = 0.29$) was higher than the mean score for the participant group ($M = 6.44, SE = 0.33$). This shows that whereas the participant group had the same level of family cohesion as the comparison group after the literacy program, this similarity could only be achieved

Table 2
Scales means for pretest and posttest

Scale		Pretest	Posttest	<i>t</i>	<i>p</i>	<i>N</i>
Social participation	<i>M</i>	6.43	6.84	2.06	< .05	97
	<i>SD</i>	1.97	1.87			
Family cohesion	<i>M</i>	5.82	6.66	2.95	< .005	96
	<i>SD</i>	2.79	2.91			
Value of children	<i>M</i>	6.67	5.22	3.05	< .005	91
	<i>SD</i>	4.58	4.58			
Women's participation in decision making	<i>M</i>	2.15	2.01	1.11	< .05	95
	<i>SD</i>	1.23	1.26			
Positive self-concept	<i>M</i>	5.94	6.99	2.68	< .005	97
	<i>SD</i>	4.10	4.47			
Self-efficacy	<i>M</i>	6.95	7.03	0.58	> .05	97
	<i>SD</i>	2.80	3.06			
News-topic recall	<i>M</i>	2.64	4.02	7.51	< .001	65
	<i>SD</i>	1.47	1.71			
News-content recall	<i>M</i>	2.45	4.14	4.61	< .001	65
	<i>SD</i>	1.92	2.70			

following the literacy program because the participant group's level of family cohesion prior to program participation was significantly lower than that of the comparison group.

Discussion

One of the critical issues in intervention programs is the measurement and the evaluation of the impact of the program. There are several problems in evaluation research across disciplines. Many researchers across diverse fields have been challenged to demonstrate the impact of a program. For example, outcome research in community disease prevention programs (Baranowski, Lin, Wetter, Resnicow, & Hearn, 1997), in programs for children with reading difficulties (Center, Wheldall, & Freeman, 1992), in special education programs (Detterman & Thompson, 1997), and in public health programs

(Fishbein, 1996) have consistently failed to demonstrate the effect of the intervention programs despite stable observations of change in the desired direction.

From the perspective of public health, Fishbein (1996) argued that many intervention programs are conducted for a brief duration, or they are tested after a short-term implementation. Such interventions generally cannot generate changes in behavior that are large enough for statistical significance. Statistically significant changes are in the vicinity of 20% to 30% from the original levels, which are difficult if not impossible to achieve subsequent to a brief intervention program. Improvements of a magnitude of less than 20% would not appear as significant unless obtained from samples much larger than many of these program evaluation studies can afford. However, from the perspective of program

implementation, a program achieving a change of 10% to 15% is a successful program.

Another major difficulty in intervention programs is finding an appropriate comparison group. In many studies, comparison groups that are not part of the program are hard to come by or it is ethically unacceptable to deny the intervention program to them. This is especially the case when the intervention program is for children, and rapid changes in many aspects of their lives are occurring while the intervention program is taking place. This may be less of a concern when the program is designed for an adult population and there are no discernible causes for changes in adult behavior. Alternative solution strategies are offered for research with children, such as comparing with age-appropriate norms or using age-adjusted expected scores as a comparison with obtained scores (McCall, Ryan, & Green, 1999). However, such strategies are not available for adult populations.

In many studies, there is also the problem of discontinuing participants. They could be considered failed attempts of the program or they could be completely ignored, with either solution being problematic in some way. Another difficulty is that the behavior that is the focus of the intervention program is often difficult or impossible to measure directly. Therefore, indirect measures or verbal reports are used, and such measures may not represent the behavior adequately. The limitations of self-reports are well known. However, any bias that may be shifting self-reports in a particular direction would be influential in both pretest and posttest. Thus, we may assume the differences between pretest and posttest scores to be reliable changes, affected minimally by biases of self-reports. Nevertheless, our results do reflect, to some degree, some of the mentioned problems associated with intervention studies.

The changes associated with participation in FALP are displayed by the results. Even though the magnitude of these changes is not overly striking, it is clear that these changes go beyond the acquisition of basic literacy skills. FALP is a

program of short duration (four months), and the women started out at the zero literacy point; however, it would not be wrong to argue that they were changed by the experience. An examination of the results provides insights to the changes obtained.

Significant changes are found in the levels of social participation, family cohesion, value of children (VOC), and self-concept as well as in the recall of news stories. These changes associated with program participation are partially corroborated by the examination of the differences between the participant group and the comparison group. The social participation and self-efficacy scores of the participant group in the posttest were significantly above the comparison group whereas the pretest scores were not different, indicating an increase above the comparison group. On the other hand, pretest scores of the program participants were significantly below the comparison group in the family cohesion scale whereas there was no difference in the posttest, also indicating an increase that approached the level of the comparison group. These results show a number of noncognitive gains from program participation. It should be noted that these changes not only involve the woman but also reach out to family relations and to her orientation toward her children. Regarding the self, the gains are seen in a higher positive self-concept.

FALP participation is also associated with changes regarding orientation to having children. In particular, there is much less stress put on the overall VOC or on the specific economic/utilitarian, social, or psychological VOC as reasons for wanting to have *more* children. Clearly small-family values have developed as a result of FALP participation. This is an important value change with implications for positive orientation toward family planning. Previous research (Fawcett, 1983; Kagitcibasi, 1982, 1986, 1998) pointed to the importance of the VOC for fertility and the negative association between women's intrafamily status and the importance attached to the reasons under VOC (particularly the economic/utilitarian one)

for wanting to have more children. This is because higher status and higher self-confidence involve less dependency on grown-up offspring for one's livelihood. Thus the change obtained here may reflect a process of empowerment or increased intrafamily status of the woman in line with the other gains at the self and family levels, pointing to more egalitarian spousal relations.

Overall, the results on noncognitive behavioral changes point to transfers to other realms of activity from basic gains in literacy. These changes emerge as significant benefits pertaining to the self, family relations, and orientations to children—spanning significant aspects of women's lives. It is to be noted that these are secondary gains, given that the main goal of FALP is imparting basic literacy skills. Nevertheless, they may be considered to be as primary or basic as the main goal, in changing women's lives and in turn reinforcing and sustaining their literacy. We argue that the capabilities identified by Sen (1985) and Nussbaum (2000) have been concretely displayed in this study in accordance with local contexts and circumstances. There is no doubt that significant changes that were found in the levels of social participation, family cohesion, value of children, and self-concept as well as in the recall of news stories work toward the well-being of women. We expect that they would provide the opportunity for women to achieve well-being.

Apart from noncognitive gains, findings regarding cognitive gains operationalized as TV news recall are striking. Our hypothesis was that literacy would have an impact on cognitive skills beyond the skills of reading and writing. We argue that learning to read initiates a chain reaction of changes in the cognitive processing system. The improved recall may imply that literacy, as limited as it is with a four-month instruction, may alter the processing of information in memory. Television news is spoken text, a different type of discourse from conversation or reading. It lacks the interactiveness of conversation, and the possibility to move back and forth if necessary in

reading. Therefore, comprehension and recall of TV news is a more complicated task and is more difficult to achieve. The improvement in recall associated with literacy program participation may attest to Olson's (1996) claims that literacy is an overall modification of our conceptualization and processing of language. Acquisition of such skills and knowledge, ranging from orthographic to syntactic, semantic to representational, has implications for other cognitive processes. For instance, memory processes are provided with a new tool, such as writing, and a new medium of representation, such as visual images of words, that could be used in the service of remembering.

While preliterate societies are dependent upon oral traditions for both personal and public memories (Rubin, 1995), writing alleviates the pressure on cognitive resources of individuals. Nevertheless, Olson (1996) claimed the effect is much more significant than that. As people become readers, they lose their ability to represent language in any other form than the form provided by the model of written language. Learning to read and write is a series of discoveries: discovery of the phonemic units, discovery of words, discovery of grammatical form, and discovery of sentence meaning (Olson). Therefore, with the introduction of written language, the representation of language becomes quite different from the representation generated by oral language.

Better comprehension and better recall of TV news also have implications for social participation. News comprehension allows the participants to improve their social capital as well as providing them with a link to the external world beyond their reach.

Study 2 design

The main objective of Study 2 was to examine the extent to which the effects of the empowerment program of the main study were sustained over time and whether any gains were institutionalized in the lives of the women who participated in FALP. In other words, Study 2 aimed to find out if

gained capabilities continued as ends in themselves as well as means for social inclusion in the public and economic domains. For the purposes of this study, institutionalization of effects has been operationalized as the extent of women's participation in formal or informal economy.

Study 2 specifically examined (a) how much of the effect of the empowerment program can still be observed; (b) whether the participants of FALP have been able to translate their increased capabilities in functional literacy into income-earning capacities in the formal or informal economy; (c) what the contextual and structural determinants would be of any variations existing among women in the levels of transferring these capacities and choices to public and economic domains; and (d) what constraining conditions and enabling resources would exist.

Method

Study 2 was conducted one year after the completion of FALP. It consisted of a survey questionnaire. Several questions from the questionnaire used in Study 1 were repeated in addition to questions tapping women's current employment status and participation in informal economy. The survey was administered to the participants of FALP and to a separate control group recruited from the same neighborhoods as the FALP participants.

Participants

For the survey questionnaires, a random subsample from the sample of Study 1 was selected and followed up at their home addresses. The comparison group was formed as in Study 1, through a snowball sampling technique: FALP participants were asked to give names of friends or relatives in that neighborhood who had not attended any literacy programs. Particular attention was paid to choosing the comparison sample in comparable socioeconomic neighborhoods. Fifty

prior FALP participants and 30 comparison group participants were recruited.

Measures

In the survey, there were questions regarding employment status, reason for unemployment, self-concept, and family cohesion and social participation questions from the survey used in Study 1. However, Study 2 did not repeat the news-recall module of Study 1.

Procedure

The survey involved making appointments and having trained interviewers visit the participants at home. The surveys were read to the participants, and their responses were recorded individually by the interviewers.

Results

A major aim of Study 2 was to evaluate the stability of the gains in FALP participants over time. It is important to note here that the first assessment (Study 1) was conducted at the end of the literacy program and the follow-up (Study 2) was conducted one year later. Table 3 displays results of the paired samples *t* test examining the stability of gains over time. These results are based on a subsample of the participants in Study 1, and a subset of items in Study 1 was used in Study 2. As can be seen in Table 3, except for family cohesion, which shows a decrease, the gains that had been observed at the end of program participation were maintained or increased over time.

In addition to studying the sustainability of the results of Study 1, Study 2 also examined whether gains acquired from the program turned into income-earning capacities. Five out of 49 (10.2%) of FALP participants were employed while four of the participants in the control group were working (13.3%). Contrary to our expectations, very few of the FALP women participated in the labor market after the program. A

Table 3
Stability of gains results of the paired sample *t*-test
Functional Adult Literacy Program scores

	Mean	<i>t</i>	<i>p</i>	<i>N</i>
Positive self-concept				
Study 1	8.32	2.73*	< .01	34
Study 2	8.71			
Social participation				
Study 1	6.82	.73	> .01	34
Study 2	7.00			
Value of children				
Study 1	7.71	.452	> .01	34
Study 2	7.62			
Women's decision making				
Study 1	2.24	2.34*	< .01	34
Study 2	2.51			
Self-efficacy				
Study 1	6.06	3.89*	< .001	34
Study 2	7.06			
Family cohesion				
Study 1	7.38	-3.17*	< .01	34
Study 2	6.92			

**p* < .01

chi-square analysis showed no significant difference between FALP and control groups in terms of their employment status. Women were also asked if they would have wanted to work. While 50% of the nonworking FALP participants indicated that they would have wanted to work, 46% of the nonworking women in the control group expressed such a desire. The result of the contingency analysis was not significant.

A further analysis was conducted in order to examine the reasons of this rather low level of employment. Among FALP participants, 27.9% indicated that their husbands did not permit them to work, 20.9% showed the need to take care of their children, and 18.6% said they were suffering from poor health. The pattern of responses was considerably different in the control group. In this group, 48.1% indicated that they

had to take care of children and 14.8% said their husbands did not allow them to work. Poor health was a concern for fewer respondents in this group (7.4%).

There is a major age difference between the two groups that may account for the differences in reasons given for unemployment as well. The mean age for FALP participants was 41.4, whereas it was 35.3 for the control group.

Discussion

A number of pertinent issues arise from these findings in relation to the home, household dynamics, self-efficacy, and women's employment. First, the findings demonstrate the importance of self-efficacy acquired as a result of a very basic level of reading skill (not even writing skill; their

writing is at a rudimentary level). It is interesting to observe that the participants had not shown any improvements in self-efficacy between the pretest and the posttest in Study 1, but there is a significant improvement from Study 1 to Study 2. Self-efficacy measures that were used in these studies were behavioral, such as the frequency of taking a public bus alone or making a financial transaction at a bank. The posttest was given only four months after the pretest, too short a period for opportunities to arise to practice a newly acquired skill. Therefore, there were not any differences from the pretest. However, a year later, when the follow-up interviews were conducted, these new skills were put to use, and they emerged as delayed effects reflecting a higher level of self-efficacy achieved. Reading even at a very basic level significantly increased the mobility of the women in the public domain. Moreover, these capabilities appear to have been sustained for one year after the completion of the program. It seems reasonable to suggest that the new capacity of reading combats at least one layer of social exclusion, which is *spatial* exclusion. Neighborhoods inhabited by the population represented by our participants are usually the segregated urban spaces characterized by only local community ties and limited access to resources of the postindustrial city. In this context, increased social mobility is a crucial step in the social inclusion of this particular group of women.

In terms of employment, the low-grade, low-paid type might be the only possibility for these women. Lacking school diplomas and having limited skills, they can be employed only by the informal sector without any social security benefits or job security. In this sense, their social inclusion is relatively precarious and limited and can be relied upon only as long as there is a need for unskilled women workers in the market. Social inclusion is limited also because women do not perceive themselves as being part of the labor market unless they are formally within the public social security system. Furthermore, such unskilled employment does not enjoy social status and is commonly taken out of necessity. It may

also be objected to because it reflects badly upon the breadwinner role of the husband.

These findings illustrate how a multiplicity of factors, relating to low earnings potential and normative and practical barriers associated with women's status (traditions, values), may combine to constrain labor force participation. Thus, considering literacy as a means to get a job may be a limited perspective. The functionality of FALP is not defined in a narrow vocational sense but more broadly (Durgunoglu, 2000). It is seen as the enhancement of a sense of well-being involving a more positive self-concept and greater competence. Indeed it is these gains from the program that have been sustained and even increased after a year.

The sampling of the comparison group needs to be discussed because the differences between the two groups confuse the interpretation of the results to a certain extent. The snowball sampling technique was selected to ensure the similarity of the comparison group and the FALP participants. The neighborhoods where the participants live was an important factor, and we asked the participants to give us names from their own neighborhoods. The reasoning behind this was that neighborhoods generally include residents from similar socioeconomic backgrounds and even the same city of origin. Snowball sampling is a useful method of ensuring similarity of these variables. The demographic variables indicate that this expectation was met to a certain extent. However, there seems to have been some degree of selective naming on the part of the participants when they offered names for the comparison group. This selectivity led to a somewhat younger sample for the comparison group.

Conclusions

In this study, functional literacy, as entailed in FALP, emerges as a powerful process of transformation, extending from cognitive to noncognitive gains, and from each participant to her immediate environment. Two factors apparently played a

role in these transformations. The first is the nature of FALP, which is a highly effective, nonformal adult education program that involves a participative and interactive learning environment, a psycholinguistically sound approach to teaching literacy, and functional and meaningful content. The content of the reading material focuses on discussions of topics relevant to these women, providing insights to issues. Second, FALP entails a basic process of empowerment in terms of unschooled women participating in a self-enhancing educational activity for the first time in their lives. This experience is bound to have results, as displayed in this study.

These findings suggest that literacy, even at a very basic level, can be rendered meaningful and functional and thus transfer to other domains of social life. Functional literacy skills can expand to media literacy skills and also contribute to women's integration into social life, particularly the public domain. These changes may be attributed, first, to the analytical and cognitive skills acquired during the program and, second, to the experience of going to a public center to participate in an educational program where self-expression and democratic social interaction had few restrictions. It appears that this dimension of interaction at a more public level is also a part of the empowerment process. The public nature of the literacy program environment together with the newly acquired critical and cognitive skills apparently provided the women with increased interaction opportunities and enhanced self-concept and capabilities.

One issue that might be raised is the perception of this emancipatory practice by the participants and the people around them. Some would question the emancipatory and threatening aspects of these newly gained skills. To answer such concerns, it would be worthwhile to mention a separate phase of this study within which 20 in-depth interviews were conducted with the participants (Goksen, 2001). This was an independent yet related study using the same participants. With the help of this qualitative study we hoped

to elicit what the women think about the constraints and limitations of their contexts. It helped to identify the categories, relationships, and assumptions the researchers had not considered that inform the women's world views in general and the topic in particular. For the qualitative data collection, 20 FALP participants were interviewed in their homes by the principal investigator. The interviewees were chosen randomly from the previous study sample of participants who had completed the FALP. The following is a summary of some of the findings pertaining to the potential concerns about the cultural consequences of this project.

When asked for their opinions about the literacy courses, participants responded positively, stressing the importance of literacy and knowledge. As manifested by the quantitative results of educational aspirations and expectations articulated by the participants for their daughters and sons, education is very highly and equally valued for boys and girls. The interviews also showed that one major change related to family dynamics was better interaction with the children and other family members. Participants reported that they now enjoyed positive feedback from their families regarding their newly gained literacy. An increase in these women's advocacy for education of children, especially of female children, was also observed. This might not have direct and immediate implications for women's social inclusion; however, for the next generation of women in these families, this observation carries noteworthy consequences. The following excerpt is quite revealing in demonstrating multiple issues regarding women's and their families' perceptions of these new skills. One course participant (36 years old with three children) said this:

I can read now, but I cannot write well. I write my name. My life has changed a lot. I can read the letters, I can pay the phone bill. I read books, I read whatever I find. Once I went to the hospital. Doctors asked me to go to another ward. I managed to find my way. I managed to read all the signs on the doors and was able to find the ultrasound lab. I did not have to ask anybody. Suddenly I realized that I can do things by

myself. Now when my husband finishes reading the newspaper he hands it to me so that I read.... I don't let my daughter (15 years old) help me with household chores. She needs time to study. I don't teach her any household chores. I want her to go to university. If she goes to university, she earns a lot of money, she pays other people to do household chores. I want her to have a computer. A girl should have education. I got married very young, then my husband left for his military service. He couldn't send me any letters because I couldn't read them. I couldn't write him any letters.

It was obvious from the in-depth interviews that women deeply value being self-sufficient in their daily activities. Program participation seems to contribute greatly to women's mobility in public. It seems reasonable to suggest that this new capacity combats at least one layer of social exclusion: spatial exclusion. Being able to function outside the boundaries of community is an important social gain because it may lead to other formal associations with positive outcomes.

Women's participation in the labor force as a result of newly gained literacy skill has not been realized. Employment may not be culturally acceptable, or it may not be approved in certain contexts. This lack of improved participation in the labor market can be explained by cultural factors, yet our qualitative study showed otherwise. With all the women interviewed, the case was that they saw holding a job as an undesirable consequence of financial hardships. Most women reported cultural values and no permission from their husbands as the reasons for not trying to get a job, but it was also apparent that if they had serious financial difficulties, they would present an argument to their husbands and take a job.

Another frequently reported response on the reasons for not taking a job was the lack of specialized skills and education. The women reported that they would have liked to have the appropriate qualifications to work in state institutions and to enjoy the benefits of social security and job security. Previous research (Kagitcibasi, 1986, 1998) has also shown that

work as such is not empowering for women. It depends on the type. More specialized work that requires education carries high status, but unskilled labor does not. Without special training, whatever these women could do would not be integrated into the social security system, and that would reflect badly on the family as a sign of financial difficulties.

When it does not bring status, security, and empowerment, employment may even entail an extra obligation or burden for women. When asked about the types of jobs they would prefer, the women predominantly chose jobs with social security benefits. To some extent, traditional roles (child caring) or values also play a part in not working. (For more discussion on culture and women in Turkey, see Kagitcibasi, 1982, 1986, 1998; Kandiyoti & Saktanber, 2002.) It is reasonable to suggest that being included in the formal security system may override at least some of the traditional barriers to women's participation in the labor market.

From the perspective of the individual woman who lacks basic literacy due to difficult circumstances early in life (e.g., poverty or patriarchal family ideology), participation in a literacy course is self-enhancing. The environment of the socially excluded groups, and particularly that of the women in them, is bounded by their families and neighborhood. These groups live in a restrictive context with limited opportunity for spatial mobility and few (if any) options regarding their place of residence, lifestyles, access to education, and social participation. Effective programs such as the Functional Adult Literacy Program connect women to the public sphere and have the potential to create a sense of competence. Program participation is a self-initiated, social activity done with others. Thus, while most learning still takes place within the context of the community, the public nature of the activity broadens the participants' horizon. Literacy provides a distinct advantage to these previously illiterate women in urban society.

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